

## CLAIMS

1. Electronic control system for a submarine actuator, said actuator comprising a container body from which a drive shaft projects that is suitable for inserting in a seat of said submarine device,  
5 characterised in that said system comprises an electronic control board for at least one electric motor, arranged inside said container body suitable for moving said drive shaft, said electronic board  
10 being suitable for receiving an electrical control signal for said actuator, generated by a remote control station.
2. System according to claim 1, further comprising an electronic transducer for detecting the position  
15 of such a drive shaft electrically connected with said programmable logic unit.
3. System according to claim 1, wherein said control board comprises a pilot circuit, for said at least one motor, a power supply circuit and a  
20 programmable logic unit.
4. System according to claim 1, wherein said actuator comprises two electric motors associated with said drive shaft and said electronic control board is suitable for controlling each motor  
25 independently from the other.

5. System according to claim 1, wherein said electronic control board comprises a first retroaction circuit of the current absorbed by the motor between the programmable logic unit and the pilot circuit and a second pilot circuit of the position signal of the drive shaft between said transducer and said programmable logic unit.

6. System according to claim 5, wherein said control board is suitable for processing the signals coming from the position transducer from a control input and from the pilot circuit, in order to generate an activation signal of said at least one electric motor.

7. System according to claim 6, wherein said processing comprises calculating a speed value and direction for the rotation of the motor, starting from a position value of the drive shaft to be reached and from the current position of the shaft detected by said transducer, and sending a corresponding signal to the pilot circuit of the motor.

8. System according to claim 1, wherein said electronic control board comprises a filtering block of said control signal that compares the value of the signal received with an average of a predetermined

number of previous control signals.

9. System according to claim 2, wherein said control board carries out a comparison between the signal received by the transducer and a predetermined  
5 number of previous memorised signals corresponding to the limit positions of the movement of the drive shaft, and, from subsequent processing through a linearisation function, determines a decoded position signal.

10 10. System according to claim 4, wherein said electronic control board is suitable for selecting which electric motor controls the shaft and in the case of an anomaly it is able to switch from one motor to the other.

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